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PATENT SPECIFICATION

693,863



Date of filing Complete

Specification: March 18, 1952.

No. 10080/51.

Application Date: April 30, 1951.

Complete Specification Published: July 8, 1953.

Index at acceptance:—Class 60, D1h1x, D2(b1:h1).

COMPLETE SPECIFICATION

CORRECTION OF CLERICAL ERROR

SPECIFICATION NO. 693,863

The following correction is in accordance with the Decision of the Assistant Comptroller, acting for the Comptroller-General, dated the seventh day of December, 1953.

Page 1, line 1, for "costas" read "Constantine".

THE PATENT OFFICE,
31st December, 1953

DB 39359/1(7)/3850 150 12/53 R

According to the invention the means comprise a bed or frame having a socket 15 or the like for holding an oil stone in position and, in line with the oil stone, a track for a roller or wheel mounted on a tool carrier in which the tool is clamped in correct angular position and which is 20 reciprocated over the oil stone with the tool pressed on to it by hand, and stops on the track to engage the roller or wheel of the carrier at the end of each stroke to prevent over-running of the ends of the 25 stone by the tool edge.

The tool carrier consists of a bar-like member having at one end a vertically adjustable roller or wheel which travels on the track in line with the stone and at the 30 other end, a plate or portion set at an angle on which the tool can be clamped; the angle may conveniently be say twenty-five degrees and the plate or portion may have two screwed studs that extend 35 through a movable clamping plate which is forced on to the tool by wing nuts on the studs.

Projecting laterally from the bar near the clamping plates are two handle-bars 40 by which the carrier can be reciprocated over the stone.

In order that the tool may be clamped to the carrier correctly, the leg of a small T-piece or square is slidably mounted on 45 the movable clamping plate, for use in setting the tool in the correct position in the carrier.

The end of the oil stone is covered by a stone cover or lid which has no end flange or wall where it abuts against the wall 3; the latter is formed with recesses 3a into which projections on the side flanges or walls of the cover fit. 65

The bed or frame 1 extends at 1a beyond the oil stone and is covered by a steel plate 1b forming a track for the tool carrier roller or wheel.

The tool carrier bar 6 has extending 70 through its one end a stem or tail piece 7 having mounted in ball bearings in the arms of its forked lower end a roller 8. The stem is fixed after adjustment by a thumb screw 9. At the other end the bar 75 6 is formed with an inclined plate 6a with upwardly projecting studs 6b extending through a tool clamping plate 6c and fitted with wing nuts 6d.

Springs 10 may be provided between the 80 plates 6a and 6c to separate them when the wing nuts are slacked back. They are shown as plate springs riveted to the movable plate 6c but they may be helical springs surrounding the studs 6b. 85

Handlebars 11 are screwed from each side into the carrier bar, tightening against each other and being easily dismantled. 12 are the stops to prevent over-running of the stone by the tool held in the carrier. 90 As shown they consist of bars which extend across the width of the track portion of the bed or frame and are provided with pairs of dowels 12a which fit into sockets

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COMPLETE SPECIFICATION

Improvements relating to means for facilitating the Grinding or Honing of Plane Irons, Chisels and the Like

I, COSTAS VAFIADIS, a Greek Subject, of 160, St. Helens Avenue, in the County Borough of Swansea, do hereby declare the invention for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has reference to grinding or honing means for use in sharpening tools such as wood plane irons, chisels and the like tools.

According to the invention the means comprise a bed or frame having a socket or the like for holding an oil stone in position and, in line with the oil stone, a track for a roller or wheel mounted on a tool carrier in which the tool is clamped in correct angular position and which is reciprocated over the oil stone with the tool pressed on to it by hand, and stops on the track to engage the roller or wheel of the carrier at the end of each stroke to prevent over-running of the ends of the stone by the tool edge.

The tool carrier consists of a bar-like member having at one end a vertically adjustable roller or wheel which travels on the track in line with the stone and at the other end, a plate or portion set at an angle on which the tool can be clamped; the angle may conveniently be say twenty-five degrees and the plate or portion may have two screwed studs that extend through a movable clamping plate which is forced on to the tool by wing nuts on the studs.

Projecting laterally from the bar near the clamping plates are two handle-bars by which the carrier can be reciprocated over the stone.

In order that the tool may be clamped to the carrier correctly, the leg of a small T-piece or square is slidably mounted on the movable clamping plate, for use in setting the tool in the correct position in the carrier.

Referring to the accompanying drawings Figs. 1 and 2 are respectively a side elevation and plane of the oil stone bed and tool carrier; in Fig. 2 the cover or lid of the oil stone is not shown. Fig. 3 is an end view of the tool carrier roller. Fig. 4 is a section on the line IV—IV in Fig. 2 through the movable clamping plate of the carrier.

1 is a plywood bed or frame which has at one end upwardly extending side walls 2 and an end wall 3 forming a socket for the end of the oil stone 4. 5 is the oil stone cover or lid which has no end flange or wall where it abuts against the wall 3; the latter is formed with recesses 3a into which projections on the side flanges or walls of the cover fit.

The bed or frame 1 extends at 1a beyond the oil stone and is covered by a steel plate 1b forming a track for the tool carrier roller or wheel.

The tool carrier bar 6 has extending through its one end a stem or tail piece 7 having mounted in ball bearings in the arms of its forked lower end a roller 8. The stem is fixed after adjustment by a thumb screw 9. At the other end the bar 6 is formed with an inclined plate 6a with upwardly projecting studs 6b extending through a tool clamping plate 6c and fitted with wing nuts 6d.

Springs 10 may be provided between the plates 6a and 6c to separate them when the wing nuts are slacked back. They are shown as plate springs riveted to the movable plate 6c but they may be helical springs surrounding the studs 6b.

Handlebars 11 are screwed from each side into the carrier bar, tightening against each other and being easily dismantled. 12 are the stops to prevent over-running of the stone by the tool held in the carrier. As shown they consist of bars which extend across the width of the track portion of the bed or frame and are provided with pairs of dowels 12a which fit into sockets

13 in the sides of the track; two pairs of sockets 13 are indicated at each end of the track spaced apart to enable the stops to be adjusted according to the desired length of stroke.

14 is the T-piece or square slidably mounted on the clamping plate 6c; the leg of the T is embraced by a guide block 6e and the plate spring 15 attached to the guide block is pressed on to it and frictionally holds the T square in any adjusted position. The leg of the T may be marked with a scale.

The T square 14 is drawn out for measuring or indicating the correct distance of the edge of the tool from the edge of the clamping plates and is also used for checking whether the sharpened edge is square to the plates and square sides of the tool itself.

The roller or wheel 8 of the carrier bar can be adjusted before it is fixed by the thumb screw 9 to suit the extent to which the edge of the tool projects beyond the clamping plates, thus enabling short tools to be dealt with.

Two or more stones of different grits may be provided.

What I claim is:—

1. Means for facilitating the grinding or honing of plane irons, chisels and the like comprising a bed or frame having a socket or the like for holding an oil stone in position, a track, in line with the oil stone, for a roller or wheel mounted on a tool carrier in which the tool is clamped in correct angular position and which is reciprocated

over the oil stone with the tool pressed on it by hand, and stops on the track to engage the roller or wheel of the carrier at the end of each stroke to prevent over-running of the ends of the stone by the tool edge.

2. Means as claimed in Claim 1 wherein the stops are adjustable in position according to the desired length of stroke.

3. Means as claimed in Claim 1 or Claim 2 and a tool carrier consisting of a bar-like member having at one end a vertically adjustable roller or wheel which travels on the track and, at the other end, a plate or portion set at an angle on which the tool can be clamped.

4. Means as claimed in Claim 1 or 2 and a tool carrier provided with laterally extending handles.

5. Means as claimed in Claim 3 or Claim 4 wherein the tool carrier has a tool clamping plate on which is slidably mounted a T-piece or square for use in setting the tool in the correct position.

6. Means for facilitating the grinding or honing of plane irons, chisels and the like, comprising a bed or frame for holding an oil stone and a track and a tool carrier having a roller or wheel for running the track, as described with reference to and shown in the accompanying drawings.

For the Applicant,
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PROVISIONAL SPECIFICATION

Improvements relating to means for facilitating the Grinding or Honing of Plane Irons, Chisels and the Like

I, COSTAS VAFIADIS, a Greek Subject, of 160, St. Helens Avenue, in the County Borough of Swansea, do hereby declare this invention to be described in the following statement:—

This invention has reference to grinding or honing means for use in sharpening tools such as wood plane irons, chisels and the like tools.

The means comprise a bed or frame having a socket or the like for holding an oil stone in position and, in line with the oil stone, a track for a roller or wheel mounted on a tool carrier in which the tool is clamped in correct angular position and which is reciprocated over the oil stone with the tool pressed on to it by hand.

In one construction the bed is in the form of a flat table of ply wood covered

with a steel plate provided with a raised socket into which the oil stone fits.

The tool carrier consists of a bar-like member having at one end a vertically adjustable roller or wheel which travels on the table in line with the stone and at the other end a plate or portion set at an angle of say twenty-five degrees and having two screwed studs that extend through a movable plate; wing nuts on the studs enable a tool inserted between the plates to be clamped to the bar. Springs may be provided between the plates to separate them when the wing nuts are slacked back. These may be plate springs riveted to the movable plate or helical springs surrounding the studs.

Projecting laterally from the bar near the clamping plates are two handle-bars by

which the carrier can be reciprocated over the stone; these handlebars are screwed from each side into the carrier bar, tightening against each other and being easily dismantled.

To prevent over-running of the ends of the stone by the tool edge stops are provided on the table to engage the roller or wheel at the end of each stroke. The table may have a number of sockets in line to enable the stops to be adjusted in position according to the desired length of stroke.

In order that the tool may be clamped to the carrier correctly, the leg of a small T-piece or square is slidably mounted on the movable clamping plate; this "T" square may be held in position by a plate spring and is drawn out for measuring the correct distance of the edge of the tool from the edge of the clamping plates and is also used for checking whether the sharpened edge is square to the plates and

square in itself.

The vertically adjustable roller or wheel of the carrier bar enables it to be adjusted to suit the extent to which the edge of the tool projects beyond the clamping plates, thus enabling short tools to be dealt with.

The roller or wheel is mounted on bearings, preferably ball, carried by a stem or tailpiece extending through the bar and fixed by a thumb screw in the chosen position.

For the protection of the stone a lid is provided which slips into slots on the table structure.

Two or more stones of different grits may be provided.

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Printed for Her Majesty's Stationery Office by Wickes & Andrews, Ltd., E.C.4. 39/244.—1953.
Published at The Patent Office, 25, Southampton Buildings, London, W.C.2, from which copies may be obtained.

FIG. 1.

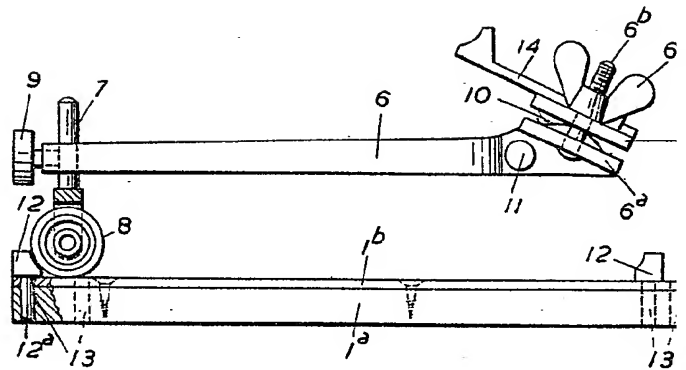


FIG.

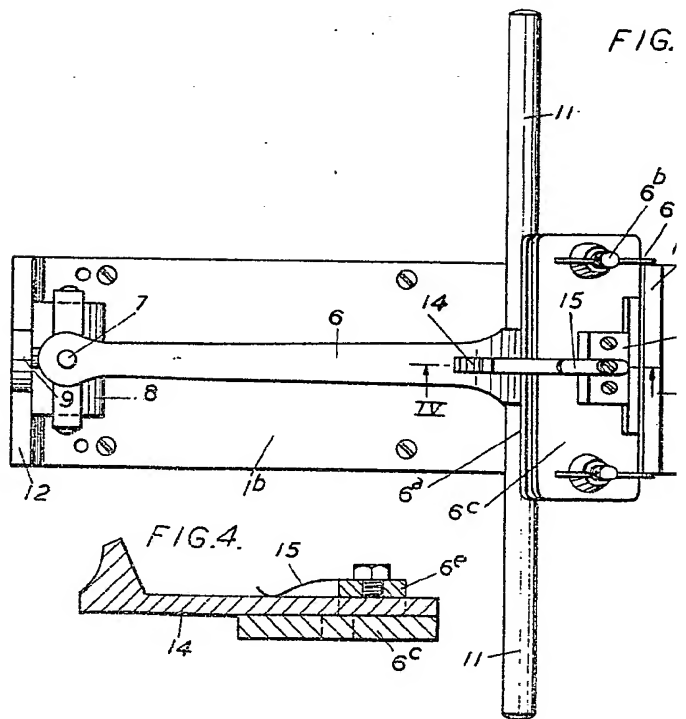


FIG. 4.

This drawing is a reproduction of
the Original on a reduced scale.

FIG. 1.

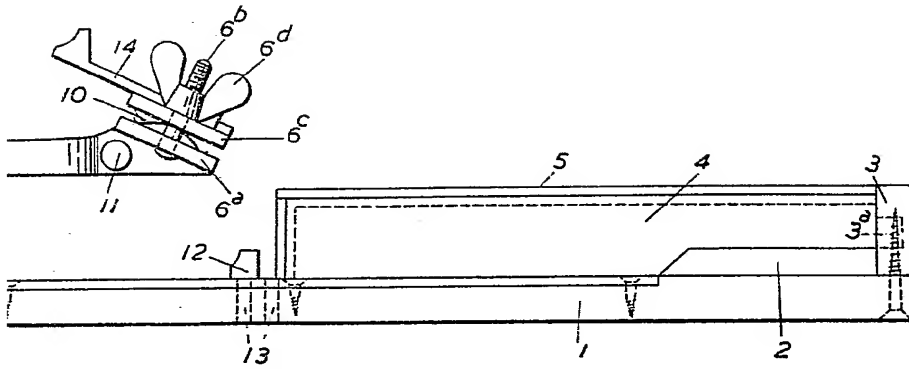


FIG. 2.

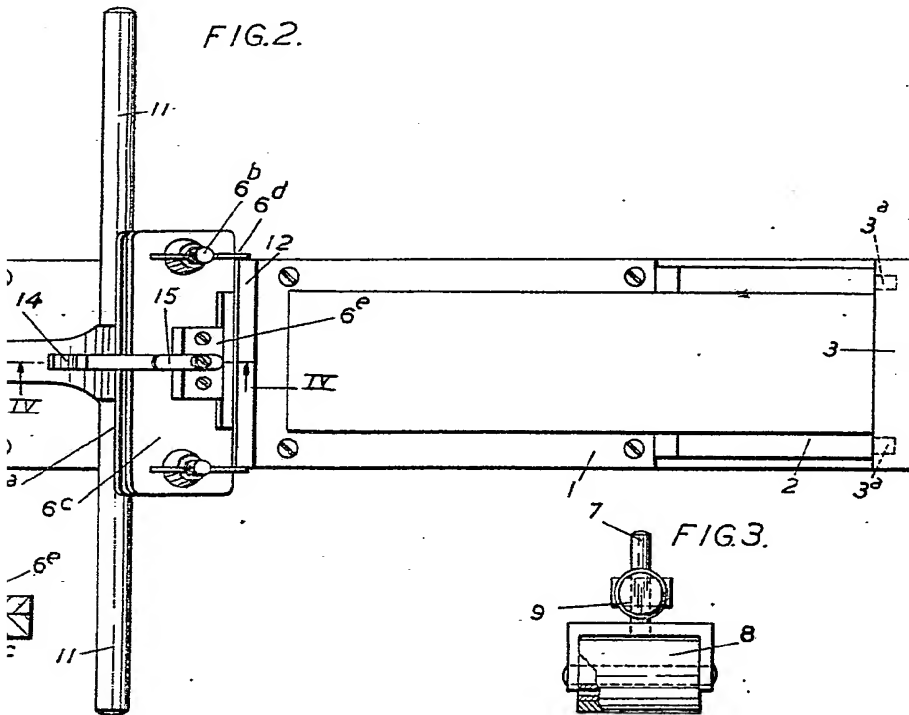


FIG. 3.

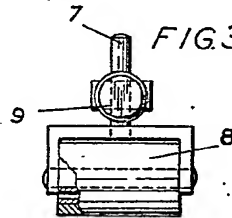


FIG. 1.

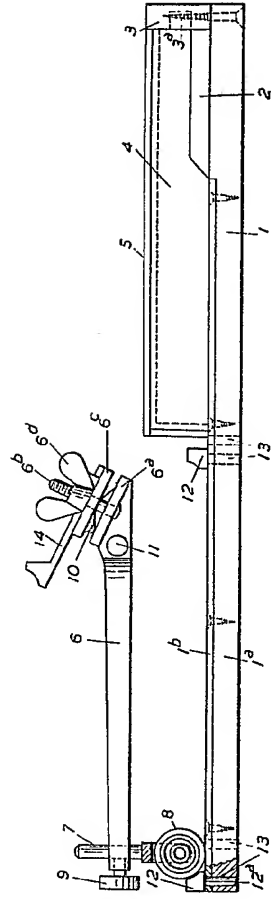


FIG. 2.

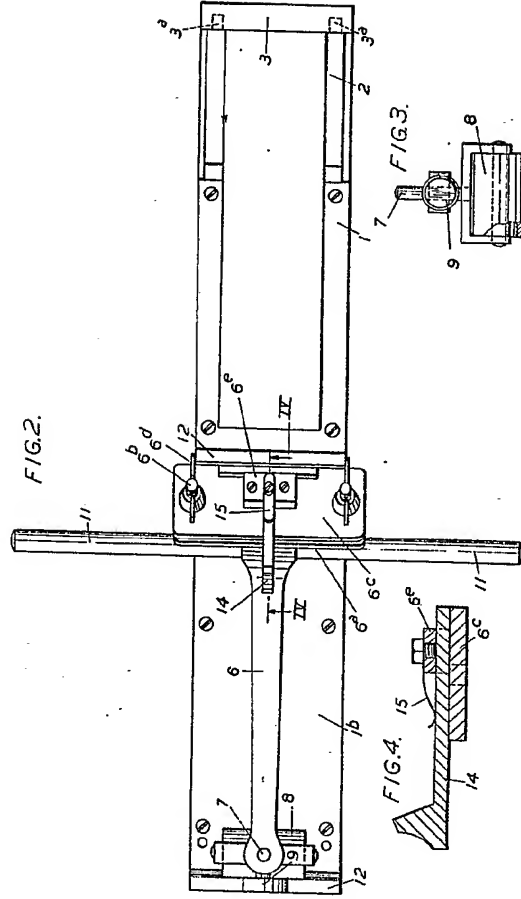


FIG. 3.

FIG. 4.